



County of Los Angeles CHIEF EXECUTIVE OFFICE

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WILLIAM T FUJIOKA
Chief Executive Officer

December 30, 2008

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To: Supervisor Don Knabe, Chair
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From: *for* William T Fujioka
Chief Executive Officer

FRAUD PREVENTION IN PUBLIC ASSISTANCE PROGRAMS

In response to your Board Motion of May 29, 2007, introduced by Supervisor Antonovich, this memo is an update on the feasibility of incorporating data mining technology into the Department of Public Social Services' (DPSS) data warehouse to detect and prevent fraud in County public assistance programs.

The Chief Executive Office (CEO) responded to the motion with a series of previous reports, advising your Board that DPSS would partner with the Service Integration Branch (SIB) to evaluate the effectiveness and feasibility of integrating data mining tools with DPSS' data warehouse. Between May and November of 2008, SIB and DPSS conducted a pilot to determine the business value of implementing data mining software for fraud detection and prevention. SAS, whose software is used in our Adult Linkages Project (ALP), was chosen as the vendor for the pilot. The pilot and the ALP have utilized the same data integration tools. These tools fully conform to confidentiality requirements and use security access controls to ensure the protection of confidential information.

The pilot results indicate that County implementation of data mining tools for the purpose of fraud detection is feasible and can be an effective tool in identifying and preventing fraud. The application of data mining software in the pilot was limited to three primary data mining tools and the analysis focused on CalWORKs Stage 1 Child Care cases in order to determine whether utilization of these tools would significantly improve the fraud detection process. The pilot used DPSS' administrative records on child care providers and CalWORKs participants during the period between January 2001 and December 2007. The software's fraud analysis capability was demonstrated in three categories: cases with characteristics placing them at a high risk

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for fraud; cases showing significant anomalies; and potential fraud rings and collusion activities.

Annual Gross Cost Avoidance of at least \$6.8 million

The pilot achieved an 85 percent success rate in detecting collusive fraud rings. The results of the pilot show that the use of data mining software as a fraud detection tool would have enabled cost avoidance in three areas highlighted below:

- *New Fraud Referrals*, resulting in an annual gross cost avoidance of at least \$2.2 million;
- *Early Detection of Fraud*, enabling an annual gross cost avoidance of \$1.6 million; and
- *Increased Efficiency*, yielding an annual gross cost avoidance of \$3 million.

The total annual gross cost avoidance in these three areas would, therefore, have been at least \$6.8 million. While only 30 percent of these savings would accrue directly to the County, the model used to generate the cost avoidance estimates assumed that only one new participant and one new child care provider would be prevented from committing fraud each month. Furthermore, the cost avoidance could possibly increase with further utilization of additional fraud detection tools not included in the pilot.

The cost avoidance enabled by the data mining software would help mitigate recent State reductions to the CalWORKs Single Allocation in FY 2008-09, as well as the projected curtailments for 2009-10. The savings would also offset some recent increases in the cost of doing business.

Enhancing the Investigative Process

Implementation of data mining technology for detection of child care fraud will facilitate an investigative collaboration between DPSS and the District Attorney's (DA) office. Representatives from the DA's office concluded that the data mining software would not only be highly useful in identifying child care fraud but would also facilitate faster transfer of major fraud cases from DPSS to the DA's office. In addition, DPSS' Welfare Fraud Prevention and Investigations Section have indicated that use of data mining tools would enhance the child care fraud investigative process in the following ways:

New Fraud Referrals

- Identification of fraudulent cases that would otherwise go undetected using current systems; and
- Detection of new fraudulent behaviors used by perpetrators as a result of the software's capacity to 'learn' from changing data patterns and gain additional precision and accuracy in the process.

Early Detection of Fraud

- Detection of suspicious participants, providers, and/or employers who may be engaged in individual or collusion fraud rings, much earlier than is currently possible;
- Earlier identification of fraud referrals with a high probability that fraud is in fact being committed based on scoring capability, and
- Provision of an automated ability to identify virtually all participants of every fraudulent conspiracy ring known to the Department.

Increased Efficiency and Effectiveness

- Reduced utilization of resources necessary to complete an investigation by making suspicious and/or inconsistent information immediately available, thereby directing the course of the investigation;
- Automated detection of potential fraud conspiracy rings, which are highly complicated and labor-intensive and frequently result in very large overpayments; and
- Increased capacity to prioritize cases and allocate resources more effectively.

Recommendation

Implementation of data mining technology as a child care fraud detection system is currently unfunded. The pilot results indicate that the data mining technology had an 85 percent success rate in identifying child care fraud rings. The pilot also showed that utilization of the software could have yielded annual gross cost savings of at least \$6.8 million. Given these findings and in view of State reductions to the CalWORKs Single Allocation funding, the CEO and DPSS jointly recommend that the Board direct

Each Supervisor
December 30, 2008
Page 4

the CEO and DPSS to identify and secure the funding necessary to implement data mining solutions for the detection and prevention of fraud in the CalWORKs Stage 1 Child Care program. Moreover, we recommend that the Board also direct the CEO and DPSS to work jointly to further expand the utilization of data mining software into fraud detection and prevention in additional public assistance programs.

If you have any questions, you may contact me or your staff may contact Miguel Santana at (213) 974-4530.

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KH:MM:am

c: Executive Officer, Board of Supervisors
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Fraud Prevention in Public Assistance Programs.bm